



**6560-50-P**

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 52**

**[EPA-R04-OAR-2017-0321; FRL-9966-00-Region 4]**

**Air Plan Approval; North Carolina; Interstate Transport**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to approve North Carolina's December 9, 2015 State Implementation Plan (SIP) submission pertaining to the Clean Air Act's (CAA or Act) "good neighbor" provision of the Clean Air Act (CAA or Act) for the 2008 8-hour ozone National Ambient Air Quality Standards (NAAQS). The good neighbor provision requires each state's SIP to address the interstate transport of air pollution in amounts that contribute significantly to nonattainment, or interfere with maintenance, of a NAAQS in any other state. In this action, EPA is proposing to determine that North Carolina's SIP contains adequate provisions to prohibit emissions within the state from contributing significantly to nonattainment or interfering with maintenance of the 2008 8-hour ozone NAAQS in any other state.

**DATES:** Comments must be received on or before **[insert date 30 days after date of publication in the Federal Register]**.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R04-OAR-2017-0321 at <http://www.regulations.gov>. Follow the online instructions for submitting comments.

Once submitted, comments cannot be edited or removed from regulations.gov. EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

**FOR FURTHER INFORMATION CONTACT:** Ashten Bailey, Air Regulatory Management Section, Air Planning and Implementation Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960. Ms. Bailey can also be reached via telephone at (404) 562-9164 and via electronic mail at [bailey.ashten@epa.gov](mailto:bailey.ashten@epa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **I. Background**

On March 27, 2008, EPA promulgated an ozone NAAQS that revised the levels of the primary and secondary 8-hour ozone standards from 0.08 parts per million (ppm) to 0.075 ppm. *See* 73 FR 16436. Pursuant to CAA section 110(a)(1), within three years after promulgation of a new or revised NAAQS (or shorter, if EPA prescribes), states must submit SIPs that meet the applicable requirements of section 110(a)(2). EPA has historically referred to these SIP

submissions made for the purpose of satisfying the requirements of sections 110(a)(1) and 110(a)(2) as “infrastructure SIP” submissions. One of the structural requirements of section 110(a)(2) is section 110(a)(2)(D)(i) which generally requires SIPs to contain adequate provisions to prohibit in-state emissions activities from having certain adverse air quality effects on neighboring states due to interstate transport of air pollution. There are four sub-elements, or “prongs,” within section 110(a)(2)(D)(i) of the CAA. CAA section 110(a)(2)(D)(i)(I), also known as the “good neighbor” provision, requires SIPs to include provisions prohibiting any source or other type of emissions activity in one state from emitting any air pollutant in amounts that will contribute significantly to nonattainment, or interfere with maintenance, of the NAAQS in another state. The two provisions of this section are referred to as prong 1 (significant contribution to nonattainment) and prong 2 (interference with maintenance). Section 110(a)(2)(D)(i)(II) requires SIPs to contain adequate provisions to prohibit emissions that will interfere with measures required to be included in the applicable implementation plan for any other state under part C to prevent significant deterioration of air quality (prong 3) or to protect visibility (prong 4). This proposed action addresses only prongs 1 and 2 of section 110(a)(2)(D)(i). All other infrastructure SIP elements for North Carolina for the 2008 8-hour ozone NAAQS were addressed in separate rulemakings.<sup>1</sup>

#### A. State Submittal

---

<sup>1</sup> See 80 FR 68453 (November 5, 2015), 81 FR 35634 (June 3, 2016), and 81 FR 63107 (September 14, 2016).

On December 9, 2015, the North Carolina Department of Environmental Quality (NCDEQ) submitted a SIP submittal containing a certification<sup>2</sup> that North Carolina is meeting the requirements of CAA section 110(a)(2)(D)(i)(I) for the 2008 8-hour ozone NAAQS because, based on available emissions and air quality modeling data, emissions activities within North Carolina will not significantly contribute to nonattainment or interfere with maintenance of the 2008 8-hour ozone NAAQS in any other state.<sup>3</sup> NCDEQ reviewed preliminary air quality modeling and data files that EPA disseminated in an August 4, 2015 Notice of Data Availability to assess interstate transport of ozone for the 2008 ozone NAAQS.<sup>4</sup> *See* Notice of Availability of the Environmental Protection Agency’s Updated Ozone Transport Modeling Data for the 2008 8-hour Ozone NAAQS, 80 FR 46271 (2015 NODA). NCDEQ disagrees with the 2015 NODA’s preliminary projection that North Carolina emissions may impact a projected maintenance receptor in Baltimore County, Maryland. Specifically, NCDEQ asserts that the 2015 NODA modeling analysis “is associated with inaccurate emissions inventories and deficiencies in the performance of the air quality modeling.” In its SIP submittal, NCDEQ asserts that the modeled contribution from North Carolina to the maintenance receptor in Baltimore County, Maryland, should accordingly be reduced, and the State should thus not be considered “linked” to any

---

<sup>2</sup> This submittal revises a November 2, 2012 submittal addressing other infrastructure SIP elements for North Carolina for the 2008 ozone NAAQS. *See, e.g.*, 80 FR 68453. North Carolina previously withdrew the portions of the November 2, 2012 submittal related to prongs 1 and 2.

<sup>3</sup> On July 13, 2015, EPA published a final rulemaking that finalized findings of failure to submit for 24 states, including North Carolina. *See* 80 FR 39961. The findings of failure to submit established a 2-year deadline for EPA to promulgate a federal implementation plan to address the interstate transport SIP requirements pertaining to significant contribution to nonattainment and interference with maintenance unless, prior to EPA promulgating a FIP, the state submits, and EPA approves, a SIP that meets these requirements. Additional background on the findings of failure to submit – including North Carolina’s finding – can be found in the preamble to the final rule making the finding.

<sup>4</sup> NCDEQ refers to this NODA as having been released on July 23, 2015, which was the signature date of the NODA’s accompanying memo. In addition, the comments received on the NODA were used to inform the CSAPR Update. 81 FR at 74505.

downwind state in EPA’s preliminary modeling. NCDEQ notes that the State is on track to comply and meet the Cross-State Air Pollution Rule (CSAPR) Phase 1 and 2 annual electric generation unit (EGU) state-wide allowance trading program requirements that reduce annual emissions of NO<sub>x</sub> and SO<sub>2</sub>.<sup>5</sup> In addition, NCDEQ cites information related to emissions trends – such as reductions in ozone precursor emissions and back trajectories, monitored ozone values in North Carolina, SEMAP modeling, and controls on North Carolina coal plants – as further evidence that emissions from the State will not contribute significantly to nonattainment or interfere with maintenance of the 2008 8-hour ozone NAAQS in any other state.

B. EPA’s Analysis related to 110(a)(2)(D)(i)(I) for the 2008 8-hour ozone NAAQS

EPA developed technical information and related analyses to assist states with meeting section 110(a)(2)(D)(i)(I) requirements for the 2008 8-hour ozone NAAQS through SIPs and, as appropriate, to provide backstop federal implementation plans in the event that states failed to submit approvable SIPs. On October 26, 2016, EPA took steps to effectuate this backstop role with respect to emissions in 22 eastern states<sup>6</sup> (not including North Carolina), by finalizing an update to the CSAPR ozone season program that addresses good neighbor obligations for the 2008 ozone NAAQS (“CSAPR Update”). *See* 81 FR 74504. This CSAPR Update establishes statewide NO<sub>x</sub> budgets for certain affected EGUs in the May–September ozone season to reduce the interstate transport of ozone pollution in the eastern United States, and thereby help

---

<sup>5</sup> As amended (including the 2016 CSAPR Update), CSAPR requires 27 Eastern states to limit their statewide emissions of SO<sub>2</sub> and/or NO<sub>x</sub> in order to mitigate transported air pollution unlawfully impacting other states’ ability to attain or maintain four NAAQS: the 1997 Annual PM<sub>2.5</sub> NAAQS, the 2006 24-hour PM<sub>2.5</sub> NAAQS, the 1997 8-hour ozone NAAQS, and the 2008 8-hour ozone NAAQS. CSAPR achieves these reductions through emissions trading programs in two phases: Phase 1 began in January 2015 for the annual programs and May 2015 for the ozone season program; and Phase 2 began in January 2017 for the annual programs and May 2017 for the ozone season program.

<sup>6</sup> For purposes of the CSAPR Update, “eastern” states refer to all contiguous states fully east of the Rocky Mountains (thus not including the mountain states of Montana, Wyoming, Colorado, or New Mexico).

downwind states and communities meet and maintain the 2008 ozone NAAQS. The CSAPR Update includes technical information and related analysis to assist states with meeting the good neighbor requirements of the CAA for the 2008 ozone NAAQS.

The CSAPR Update uses the same framework EPA used when developing the original CSAPR, EPA's transport rule addressing the 1997 ozone NAAQS as well as the 1997 and 2006 fine particulate matter (PM<sub>2.5</sub>) NAAQS. The CSAPR framework establishes the following four-step process to address the requirements of the good neighbor provision: 1) identify downwind receptors that are expected to have problems attaining or maintaining the NAAQS; 2) determine which upwind states contribute to these identified problems in amounts sufficient to "link" them to the downwind air quality problems; 3) identify and quantify, for states linked to downwind air quality problems, upwind emissions that significantly contribute to nonattainment or interfere with maintenance of a NAAQS; and 4) reduce the identified upwind emissions for states that are found to have emissions that significantly contribute to nonattainment or interfere with maintenance of the NAAQS downwind by adopting permanent and enforceable measures in a FIP or SIP. In the CSAPR Update, EPA used this four-step framework to determine each linked upwind state's significant contribution to nonattainment or interference with maintenance of downwind air quality. As explained below, the CSAPR Update's four-step analysis supports the conclusions of NCDEQ's analysis regarding prongs 1 and 2 for the 2008 ozone NAAQS.

In the technical analysis supporting the CSAPR Update, EPA used detailed air quality analyses to determine where projected nonattainment or maintenance areas would be and whether emissions from an eastern state contribute to downwind air quality problems at those projected nonattainment or maintenance receptors. Specifically, EPA determined whether each

state's contributing emissions were at or above a specific threshold (i.e., one percent of the ozone NAAQS). If a state's contribution did not exceed the one-percent threshold, the state was not considered "linked" to identified downwind nonattainment and maintenance receptors and was therefore not considered to contribute significantly to nonattainment or interfere with maintenance of the standard in those downwind areas. If a state's contribution was equal to or exceeded the one-percent threshold, that state was considered "linked" to the downwind nonattainment or maintenance receptor(s) and the state's emissions were further evaluated, taking into account both air quality and cost considerations, to determine whether any emissions reductions might be necessary to address the state's obligation pursuant to CAA section 110(a)(2)(D)(i)(I).

As discussed in the final CSAPR Update, the air quality modeling contained in EPA's technical analysis: (1) identified locations in the U.S. where EPA anticipates nonattainment or maintenance issues in 2017 for the 2008 8-hour ozone NAAQS (these are identified as nonattainment or maintenance receptors, respectively), and (2) quantified the projected contributions from emissions from upwind states to downwind ozone concentrations at the receptors in 2017. *See* 81 FR 74526. This modeling used the Comprehensive Air Quality Model with Extensions (CAMx version 6.11) to model the 2011 base year, and the 2017 future base case emissions scenarios to identify projected nonattainment and maintenance sites with respect to the 2008 8-hour Ozone NAAQS in 2017. EPA used nationwide state-level ozone source apportionment modeling (the CAMx Ozone Source Apportionment Technology/Anthropogenic Precursor Culpability Analysis technique) to quantify the contribution of 2017 base case NO<sub>x</sub> and VOC emissions from all sources in each state to the 2017 projected receptors. The air

quality model runs were performed for a modeling domain that covers the 48 contiguous United States, the District of Columbia, and adjacent portions of Canada and Mexico. 81 FR 74526–527. The updated modeling data released to support the final CSAPR Update are the most up-to-date information EPA has developed to inform the Agency’s analysis of upwind state linkages to downwind air quality problems for the 2008 8-hour ozone NAAQS.<sup>7</sup>

Consistent with the framework established in the original CSAPR rulemaking, EPA’s technical analysis in support of the CSAPR Update applied an air quality screening threshold of 0.75 ppb (one percent of the 2008 8-hour ozone NAAQS of 75 ppb) to identify linkages between upwind states and the downwind nonattainment and maintenance receptors. *See* CSAPR Update at 81 FR 74518–519. EPA considered an eastern state “linked” to a specific downwind receptor when the state’s contributions to that receptor meet or exceed the threshold, in which case EPA analyzed the state’s emissions further to determine whether emissions reductions might be required in order to address the downwind air quality problem. An eastern state with contributions to a specific receptor below the screening threshold is not considered linked to that receptor, and EPA thereby concludes that the state does not contribute significantly to nonattainment or interfere with maintenance of the NAAQS at that downwind receptor. EPA determined that one percent was an appropriate threshold to use in this analysis because there were important, even if relatively small, contributions to identified nonattainment and maintenance receptors from multiple upwind states at that threshold. In response to commenters who advocated for thresholds higher or lower than one percent, EPA compiled the contribution modeling results for the CSAPR Update to analyze the impact of different possible thresholds for

---

<sup>7</sup> *See* “Air Quality Modeling Final Rule Technical Support Document for the Final CSAPR Update” (CSAPR Update Modeling TSD), available at <https://www.regulations.gov/document?D=EPA-HQ-OAR-2015-0500-0575>.



the eastern United States. EPA's analysis showed that the one-percent threshold captures a high percentage of the total pollution transport affecting downwind states. EPA's analysis further showed that the application of a lower threshold would result in relatively modest increases in the overall percentage of ozone transport pollution captured, while the use of higher thresholds would result in a relatively large reduction in the overall percentage of ozone pollution transport captured relative to the levels captured at one percent at the majority of the receptors. *Id.*; see also Air Quality Modeling Final Rule Technical Support Document for the Final CSAPR Update, Appendix F, Analysis of Contribution Thresholds. This approach is consistent with the use of a one-percent threshold to identify those states "linked" to air quality problems with respect to the 1997 8-hour Ozone NAAQS in the original CSAPR rulemaking, wherein EPA noted that there are adverse health impacts associated with ambient ozone even at low levels. See 76 FR 48208, 48236–237 (August 8, 2011).

EPA's air quality modeling for the final CSAPR Update projects that North Carolina's emissions are projected to contribute below one percent of the 2008 ozone NAAQS to all receptors. The modeling indicates that North Carolina's largest contribution to any projected downwind nonattainment site in 2017 is 0.51 ppb and North Carolina's largest contribution to any projected downwind maintenance-only site in 2017 is 0.50 ppb.<sup>8</sup> These values are below the one-percent screening threshold of 0.75 ppb, and therefore there are no identified linkages between North Carolina and 2017 downwind projected nonattainment and maintenance sites. As a result of the modeling, EPA did not finalize a federal implementation plan that required NOx emission reductions from North Carolina in the CSAPR Update because EPA's analysis

---

<sup>8</sup> CSAPR Update Modeling TSD at Table 4-2.

performed to support the final rule does not indicate that the state is linked to any identified downwind nonattainment or maintenance receptors with respect to the 2008 8-hour ozone NAAQS. Rather, in the CSAPR Update, EPA took final action to determine that emissions from North Carolina will not significantly contribute to nonattainment or interfere with maintenance of the 2008 ozone NAAQS in any other states. 81 FR 74506, 74555. Additionally, the CSAPR Update addressed a United States Court of Appeals for the District of Columbia Circuit remand in *EME Homer City Generation, L.P. v. EPA*, 795 F.3d 118 (D.C. Cir. 2015) with respect to the interstate transport responsibility of North Carolina under the 1997 8-hour ozone NAAQS. EPA removed North Carolina from the CSAPR ozone season trading program beginning in 2017, prior to implementation of the Phase 2 ozone season emission budgets.<sup>9</sup>

## **II. What is EPA’s Analysis of the North Carolina Submittal?**

As discussed above, North Carolina’s submittal certifies that emission activities from the State will not contribute significantly to nonattainment or interfere with maintenance of the 2008 8-hour ozone NAAQS in any other state.<sup>10</sup> EPA’s updated modeling for the final CSAPR Update is consistent with the State’s determination. In the modeling conducted to support the proposed CSAPR Update, North Carolina was linked to one maintenance receptor in Baltimore County, Maryland (site 240053001). *See* 81 FR 74537–538. However, in developing the final CSAPR Update — after considering comments from North Carolina and other stakeholders in developing a revised modeling analysis — EPA no longer projects that site 240053001 in

---

<sup>9</sup> 81 FR 74523-524.

<sup>10</sup> EPA notes that North Carolina submitted similar comments during the CSAPR Update rulemaking, including attaching the December 9, 2015 Submittal. *See* Comments by the North Carolina Division of Air Quality, available at <https://www.regulations.gov/document?D=EPA-HQ-OAR-2015-0500-0273>. EPA accepted some of the comments provided by North Carolina, including those related to emissions projections. *See* Cross State Air Pollution Update Rule - Response to Comment, available at <https://www.regulations.gov/document?D=EPA-HQ-OAR-2015-0500-0572>.

Baltimore County, Maryland, will be a maintenance receptor because the site's 2017 average and maximum design values are projected to be below the NAAQS. *Id.* In addition, North Carolina is not linked to any other nonattainment or maintenance receptor, based on the final rule modeling. *Id.* Because North Carolina is not linked to any downwind nonattainment or maintenance receptors, EPA is proposing to approve North Carolina's SIP as meeting the requirements of prongs 1 and 2 for the 2008 8-hour ozone NAAQS.

### **III. Proposed Action**

EPA is proposing to approve North Carolina's December 9, 2015 SIP submission demonstrating that North Carolina's SIP is sufficient to address the CAA requirements of prongs 1 and 2 under section 110(a)(2)(D)(i)(I) for the 2008 8-hour ozone NAAQS. In the CSAPR Update, EPA has already taken a final action to determine that emissions from North Carolina will not significantly contribute to nonattainment or interfere with maintenance of the 2008 8-hour ozone NAAQS in downwind states. Accordingly, EPA proposes to find that North Carolina's SIP is consistent with this final determination. EPA requests comment on this proposed approval of North Carolina's SIP.<sup>11</sup>

### **IV. Statutory and Executive Order Reviews**

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable federal regulations. *See* 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices,

---

<sup>11</sup> EPA is not reopening for comment final determinations made in the context of the CSAPR Update based on the modeling conducted to support that rulemaking.

provided that they meet the criteria of the CAA. Accordingly, this proposed action merely approves state law as meeting federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and

- does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

The SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), nor will it impose substantial direct costs on tribal governments or preempt tribal law.

#### **List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: July 28, 2017.

V. Anne Heard

Acting Regional Administrator,

Region 4.

[FR Doc. 2017-16826 Filed: 8/9/2017 8:45 am; Publication Date: 8/10/2017]